

Amendments to the Specification:

Please replace the paragraph beginning at page 3, line 11, with the following redlined paragraph:

B¹
Lymphocytes in the peripheral blood express a large number of different antigens on their outer plasma membranes many of which are receptors for growth factors, cell-cell interactions and immunoglobulins; molecules for cell adhesion or complement stimulation; enzymes and ion channels. A single systematic nomenclature has been developed to classify monoclonal antibodies against human leukocyte cell surface antigens known as the cluster of differentiation (CD) antigens (Kishimoto *et al.*, 1997). Detailed information on CD antigens can be found at ~~http://www.ncbi.nlm.nih.gov/prow/ed/index_molecules.htm~~ the website of the National Centre for Biotechnology Information (NCBI), a division of the National Library of Medicine (HLM) at the National Institutes of Health (NIH). The expression of these cell-surface antigens can distinguish different types of mature blood cells found in the peripheral circulation.

Please replace the paragraph beginning at page 50, line 20, with the following redlined paragraph:

B²
The array of antibodies is also constructed on a membrane or a coverslip. In this case, the antibodies are covalently linked to the membrane as duplicate spots in a two-dimensional matrix. The spots are arranged in a matrix such as but not limited to a 15 x 15 matrix. The antibodies are monoclonal and are specific for the cluster of differentiation (cluster designation) antigens (CD antigens) and myeloid (MY) antigens expressed on leukemia cells. Antibodies specific for LY antigens may also be included. Details of CD antigens are available at ~~http://www.ncbi.nlm.nih.gov/prow/ed/index_molecule.htm~~ htm the website of the National Centre for Biotechnology Information (NCBI), a division of the National Library of Medicine (HLM) at the National Institutes of Health (NIH). The spots are of microscopic size and are produced by the application of a drop (~ 10 nanolitres) of antibody solution (e.g. 10 Fg protein/ml) on designated portions of a membrane or glass surface such as a coverslip, first

B2
washed with a non-specific protein absorbent such as 30% w/v skim milk (Dutch Jug, Bonlac Foods Ltd., Melbourne, Australia) and then also recorded using a relative scale of +/-, +, ++, +++,

Please replace the paragraph beginning at page 55, line 17, with the following redlined paragraph:

B3
(i) The cells or antigens are reacted with a reagent which covalently attaches fluorescent groups to amino or sulfhydryl groups on all proteins in the sample. Suitable fluorophores (~~Molecular Probes, <http://www.probes.com>~~) available as protein labelling kits are Alexa 488 and 3-(4-carboxybenzoyl)-quinoline-2-carboxaldehyde (CBQCA) which may be excited at 488 nm using an argon laser (further information on fluorophores can be found at the website of Molecular Probes). Alternatively, cells bound to an array are labelled with 5-chloromethylfluorescein diacetate (CMFDA), a membrane-permeant probe deacetylated by intracellular esterases to form fluorescent 5-chloromethylfluorescein. This product undergoes a glutathione S-transferase^B mediated reaction to produce a membrane-impermeant glutathione^B fluorescent dye adduct which then reacts with thiols on proteins and peptides to form conjugates. Fluorescently-labelled cells bound to an antibody array are quantified using a scanning fluorimeter (e.g. FluorImager or Typhoon, Molecular Dynamics, Inc) or a confocal microscope. Mild reaction conditions are preferably used so that the majority of antigen binding sties are not affected. Different cells are labelled to different extents with different numbers of fluorophores. Cells are washed prior to reaction with the fluorophore.
